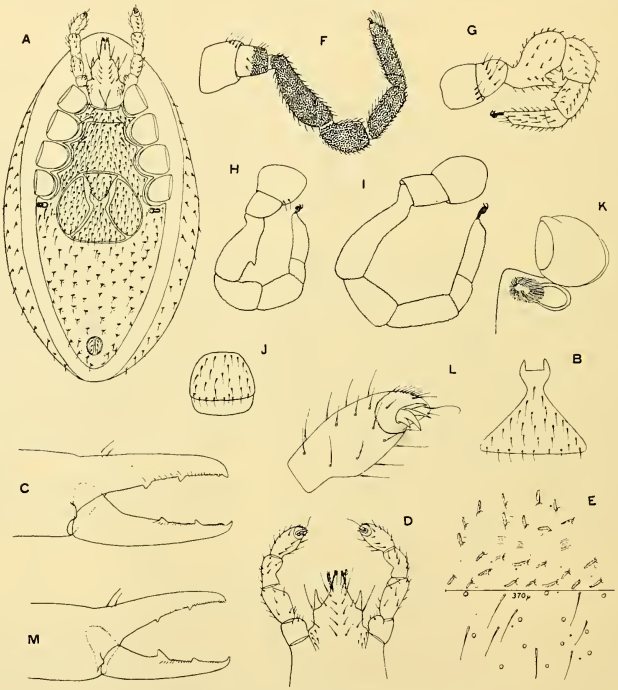
to posterior of venter; at least two pairs of longer sternal setae and pores distinguishable from the accessory setae. *Genital shield* (Fig. 1B) wider basally than high, 352 $\mu \times 304$ μ, with two anterior horns, behind which the shield constricts markedly, and then expands broadly to its base, as figured. *Lateral shield* (Fig. 1A) longer than broad, 352 $\mu \times 192$ μ, narrower anteriorly, and with rounded ends, as figured. *Median shield* (Fig. 1A) broader than long, 208 $\mu \times 160$ μ, tapering twice to posterior. Two *anal valves* (Fig. 1A) roughly semi-circular, 96 $\mu \times 46$ μ, each with three or four simple, short setae. Sternal and genital shields covered by thickly set, simple setae to 54 μ long, posterior part of venter with simple setae on tubercles, except at extreme posterior where a few setae



Text-figure 1.—*Holothyrus constrictus*, n. sp.

A-E, female, F-M, male.—A, ventral view; B, genital shield; C, chelicera; D, ventral view of gnathosoma; E, dorsal shield of *H. constrictus*, n. sp., above, and *H. australasiae* Wom., below; F, leg I; G, leg II; H, leg III; I, leg IV; J, genital shield; K, pit behind coxa IV; L, palpal tibia + tarsus; M, chelicera.

are ciliated like those on dorsum. Behind each coxa IV a sub-spherical pit (Fig. 1K) with aperture guarded by heavy brush of fine setae. Cuticle between dorsal and holoventral shield without setae. *Tritosternum* present, but small, with two weakly ciliated laciniae.

Gnathosoma (Fig. 1D) enclosed in camerostome formed by anterior part of dorsal shield. *Palpi* with five free segments, palpal tibia expanded medially, tibia + tarsus 176 $\mu \times 78$ μ, with 4-tined sensory seta at tip of tarsus, palpal claws indistinct. *Chelicerae* (Fig. 1C) large, fixed finger with two main teeth, and finely serrate edge between teeth, and with two setae dorsally at base, movable finger 264 μ, also with two teeth and

serrations. *Legs* fairly long and slender, closely tuberculate like dorsum (except on coxae), all with two claws, caruncle and pad (caruncle reduced on leg I); leg I 1490 μ, leg II 1170 μ, leg III 1180 μ, leg IV 1740 μ.

Male.

Somewhat smaller than female, heavily chitinized; *idiosoma* length 1760 μ, breadth 960 μ. *Dorsal shield* of same structure as female, entirely covering dorsum, and underlapping venter by approximately 80 μ. *Holoventral shield* of similar composition to female, 1360 μ × 688 μ (behind coxae IV). *Genital shield* (Fig. 1J) quadrate with rounded corners, broader than long, 168 μ × 116 μ; genital aperture sub-circular, 168 μ in diameter. *Anal valves* longer than broad, 80 μ × 42 μ, with three or four pairs simple setae. Glands present behind coxae IV. Ventral cuticle ornamented posteriorly with tubercles as in female. *Tritosternum* present, small (only very narrow space between sternal margin and gnathosoma).

Gnathosoma and *palpi* as in female; palpal tibia + tarsus (Fig. 1L) 176 μ × 88 μ. *Chelicerae* (Fig. 1M) very similar to female, but second tooth on movable finger slightly stronger; length of movable finger 256 μ. *Legs* (Fig. 1F–I) fairly long, slender, except leg II; all with caruncle, two claws and pad (caruncle of leg I reduced). Femur II with large process ornamented as general leg surface, femur III with similar, smaller process, genu II and tibia II with simple, small process, as figured, coxae of all legs smooth; leg I 1490 μ, leg II 1200 μ, leg III 1280 μ, leg IV 1810 μ.

Distribution.—Known only from the type locality in South Queensland.

Taxonomic notes.

This species may be readily separated from the other known Australian species, *H. australasiae* Wom., by the great difference in cuticular ornamentation (Fig. 1E), and from the other species by its very small size and armature of leg II in the male. In *H. constrictus*, n. sp., the cuticle of the dorsal shield in both sexes has numerous irregularly-spaced tubercles, each bearing a single, short seta, 18 μ to 25 μ long. These setae are stout, and have a double row of ciliations on one side only. Between the tubercles are punctate, semi-circular and eye-like pores. The tubercles are present ventrally on the posterior half, but only the setae on the extreme posterior tubercles are ciliated. The setae on the anterior half of the venter are simple and not set on tubercles, to 35 μ in the male and to 50 μ in the female. In *H. australasiae* Wom. the tubercles are smaller and not set so closely together, and the setae are not set on them, but directly in the cuticle. The setae are much longer, to 90 μ, and simple. The ventral surface is rather similar to the dorsal, with somewhat shorter setae. The general cuticular surface in both species is very minutely granulated.

The key of Womersley may be amended to include the new species by inserting the following caption:

4*a*. Leg II of male with brushes of setae on femur, genu and tibia in addition to processes; female genital shield not constricted behind anterior horns; male 2·9 mm., female 2·8 mm. (South Australia and New Zealand).....*H. australasiae* Womersley, 1935.
Leg II of male without such brushes; female genital shield markedly constricted behind anterior horns; male 1·76 mm., female 2 mm. (Queensland).....*H. constrictus*, n. sp.

There have been two errors in recent literature concerning this genus which should be noted. Radford (1950) in his checklist gives the reference to the genotype as "*Ann. Soc. ent. France*, 2", etc., but this should read "11". Secondly, in Baker and Wharton's book (1952), Fig. 33 (page 39) is labelled as "*Holothyrus longipes* Thorell, 1882. (After Hirst, 1922.)". Hirst's figure 77, page 92, is simply labelled "*Holothyrus* sp. (After Thorell.)". Vitzthum (1941, Abb. 478, S. 752) also reproduces the same figure by Thorell, and labels it (correctly) "*Holothyrus nitidissimus* Thorell, 1882, nach Thorell". Thorell described four forms of the genus in 1882 (Descrizione di alcuni Aracnidi inferiori dell' archipelago malese, in: *Ann Mus. civ. Stor. nat Genova*, 18), viz., *H. longipes*, *H. l.* var. *ferrugineus*, *H. nitidissimus* and *H. scutifer*. Of these, Thorell himself said *H. l.* var. *ferrugineus* was a nymphal form, and that "*nitidissimo* haec forma

[*scutifer*] valde similis est, et forsitan alter sexus ejus". Thon regards this to be true, and only two of Thorell's four forms are valid, *H. longipes* and *H. nitidissimus*. Thon re-examined *H. longipes* and stated: "Die Füsze sind sehr lang und auffallend schlank wie bei keiner andern Art. Thorell hat den Artnamen sehr treffend gewählt. Der 1. Fusz ist der längste, unbedeutend länger als der letzte." He gives the ratio of body length: length leg I: length leg IV as 17:41:40. The figure given by Baker and Wharton, then, cannot be *Holothyrus longipes* Thorell, 1882, but is really *Holothyrus nitidissimus* Thorell, 1882, as given by Vitzthum.

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